

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-234. (Canceled)

235. (Currently amended): A process involving competitive binding for identifying a chemical compound which specifically binds to a mammalian SNORF72 receptor which comprises separately contacting cells, or a membrane preparation from such cells, expressing on their cell surface the mammalian SNORF72 receptor, wherein such cells do not normally express the mammalian SNORF72 receptor, with both the chemical compound and a second chemical compound known to bind to the receptor, and with only the second chemical compound, under conditions suitable for binding of such compounds to the receptor, and detecting specific binding of the chemical compound to the mammalian SNORF72 receptor, a decrease in the binding of the second chemical compound to the mammalian SNORF72 receptor in the presence of the chemical compound being tested indicating that such chemical compound binds to the mammalian SNORF72 receptor; wherein the mammalian SNORF72 receptor ~~has above 75% amino acid identity to the SNORF72 receptor encoded by (1) the nucleic acid sequence shown in SEQ ID NO:3 or (2) the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446)~~ is a human SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.T3T7-hSNORF72-f (ATCC

amino acid sequence shown in SEQ ID NO: 4; or a rat
SNORF72 receptor which has an amino acid sequence
identical to (1) that encoded by the plasmid pEXJ.BS-
rSNORF72-f (ATCC Patent Deposit Designation No. PTA-
1927) or (2) the amino acid sequence shown in SEQ ID
NO: 25.

236. (Canceled)

237. (Canceled)

238. (Previously presented): The process of claim 235, wherein
the cell is an insect cell.

239. (Previously presented): The process of claim 235, wherein
the cell is a mammalian cell.

240. (Previously presented): The process of claim 239, wherein
the cell is nonneuronal in origin.

241. (Previously presented): The process of claim 240, wherein
the nonneuronal cell is a COS-7 cell, 293 human
embryonic kidney cell, a CHO cell, a NIH-3T3 cell, a
mouse Y1 cell, or a LM(tk-) cell.

242. (Previously presented): The process of claim 241, wherein
the compound is not previously known to bind to a
mammalian SNORF72 receptor.

243. (Currently amended): A method of screening a plurality of
chemical compounds not known to bind to a mammalian
SNORF72 receptor to identify a compound which
specifically binds to the mammalian SNORF72 receptor,

which comprises

- (a) contacting cells, or a membrane preparation from such cells, transfected with, and expressing, DNA encoding the mammalian SNORF72 receptor with a compound known to bind specifically to the mammalian SNORF72 receptor;
- (b) contacting the cells of step (a) with the plurality of compounds not known to bind specifically to the mammalian SNORF72 receptor, under conditions permitting binding of compounds known to bind to the mammalian SNORF72 receptor;
- (c) determining whether the binding of the compound known to bind to the mammalian SNORF72 receptor is reduced in the presence of the plurality of compounds, relative to the binding of the compound in the absence of the plurality of compounds; and if so
- (d) separately determining the binding to the mammalian SNORF72 receptor of each compound included in the plurality of compounds, so as to thereby identify any compound included therein which specifically binds to the mammalian SNORF72 receptor; wherein the mammalian SNORF72 receptor ~~has above 75% amino acid identity to the SNORF72 receptor encoded by (1) the nucleic acid sequence shown in SEQ ID NO:3 or (2) the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446)~~ is a human SNORF72 receptor which has an amino acid sequence

identical to (1) that encoded by the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446) or (2) the amino acid sequence shown in SEQ ID NO: 4; or a rat SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.BS-rSNORF72-f (ATCC Patent Deposit Designation No. PTA-1927) or (2) the amino acid sequence shown in SEQ ID NO: 25.

244. (Canceled)

245. (Canceled)

246. (Previously presented): The method of claim 243, wherein the cell is a mammalian cell.

247. (Previously presented): The method of claim 246, wherein the mammalian cell is non-neuronal in origin.

248. (Previously presented): The method of claim 247, wherein the non-neuronal cell is a COS-7 cell, a 293 human embryonic kidney cell, a LM(tk-) cell, a CHO cell, a mouse Y1 cell, or an NIH-3T3 cell.

249. (Currently amended): A process for determining whether a chemical compound is a mammalian SNORF72 receptor antagonist which comprises contacting cells transfected with and expressing DNA encoding the mammalian SNORF72 receptor with the compound in the presence of a known mammalian SNORF72 receptor agonist, under conditions permitting the activation of the mammalian SNORF72 receptor, and detecting any

decrease in mammalian SNORF72 receptor activity, so as to thereby determine whether the compound is a mammalian SNORF72 receptor antagonist; wherein the mammalian SNORF72 receptor ~~has above 75% amino acid identity to the SNORF72 receptor encoded by (1) the nucleic acid sequence shown in SEQ ID NO:3 or (2) the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446)~~ is a human SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446) or (2) the amino acid sequence shown in SEQ ID NO: 4; or a rat SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.BS-rSNORF72-f (ATCC Patent Deposit Designation No. PTA-1927) or (2) the amino acid sequence shown in SEQ ID NO: 25.

250 - 253. (Canceled)

254. (Currently amended): A process for determining whether a chemical compound specifically binds to and inhibits activation of a mammalian SNORF72 receptor, which comprises separately contacting cells producing a second messenger response and expressing on their cell surface the mammalian SNORF72 receptor, wherein such cells do not normally express the mammalian SNORF72 receptor, with both the chemical compound and a second chemical compound known to activate the mammalian SNORF72 receptor, and with only the second chemical compound, under conditions suitable for activation of the mammalian SNORF72 receptor, and measuring the second messenger response in the presence of only the

second chemical compound and in the presence of both the second chemical compound and the chemical compound, a smaller change in the second messenger response in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound indicating that the chemical compound inhibits activation of the mammalian SNORF72 receptor; wherein the mammalian SNORF72 receptor ~~has above 75% amino acid identity to the SNORF72 receptor encoded by (1) the nucleic acid sequence shown in SEQ ID NO:3 or (2) the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446)~~ is a human SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit Designation No. PTA-1446) or (2) the amino acid sequence shown in SEQ ID NO: 4; or a rat SNORF72 receptor which has an amino acid sequence identical to (1) that encoded by the plasmid pEXJ.BS-rSNORF72-f (ATCC Patent Deposit Designation No. PTA-1927) or (2) the amino acid sequence shown in SEQ ID NO: 25.

255. (Previously presented): The process of claim 254, wherein the second messenger response comprises chloride channel activation and the change in second messenger response is a smaller increase in the level of chloride current in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

256. (Previously presented): The process of claim 254, wherein the second messenger response comprises change in intracellular calcium levels and the change in second

messenger response is a smaller increase in the measure of intracellular calcium in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

257. (Previously presented): The process of claim 254, wherein the second messenger response comprises release of inositol phosphate and the change in second messenger response is a smaller increase in the level of inositol phosphate in the presence of both the chemical compound and the second chemical compound than in the presence of only the second chemical compound.

258. (Canceled)

259. (Canceled)

260. (Previously presented): The process of claim 254, wherein the cell is an insect cell.

261. (Previously presented): The process of claim 254, wherein the cell is a mammalian cell.

262. (Previously presented): The process of claim 261, wherein the mammalian cell is nonneuronal in origin.

263. (Previously presented): The process of claim 262, wherein the nonneuronal cell is a COS-7 cell, CHO cell, 293 human embryonic kidney cell, NIH-3T3 cell or LM(tk-) cell.

264. (Canceled)

265. (Canceled)

266. (Currently amended): A method of screening a plurality of chemical compounds not known to inhibit the activation of a mammalian SNORF72 receptor to identify a compound which inhibits the activation of the mammalian SNORF72 receptor, which comprises:

- (a) contacting cells transfected with and expressing the mammalian SNORF72 receptor with the plurality of compounds in the presence of a known mammalian SNORF72 receptor agonist, under conditions permitting activation of the mammalian SNORF72 receptor;
- (b) determining whether the extent or amount of activation of the mammalian SNORF72 receptor is reduced in the presence of one or more of the compounds, relative to the extent or amount of activation of the mammalian SNORF72 receptor in the absence of such one or more compounds; and if so
- (c) separately determining whether each such compound inhibits activation of the mammalian SNORF72 receptor for each compound included in the plurality of compounds, so as to thereby identify any compound included in such plurality of compounds which inhibits the activation of the mammalian SNORF72 receptor; wherein the mammalian SNORF72 receptor ~~has above 75% amino acid~~

~~identity to the SNORF72 receptor encoded by (1)~~
~~the nucleic acid sequence shown in SEQ ID NO:3 or~~
~~(2) the plasmid pEXJ.T3T7-hSNORF72-f (ATCC Patent~~
~~Deposit Designation No. PTA-1446)~~ is a human
SNORF72 receptor which has an amino acid sequence
identical to (1) that encoded by the plasmid
pEXJ.T3T7-hSNORF72-f (ATCC Patent Deposit
Designation No. PTA-1446) or (2) the amino acid
sequence shown in SEQ ID NO: 4; or a rat SNORF72
receptor which has an amino acid sequence
identical to (1) that encoded by the plasmid
pEXJ.BS-rSNORF72-f (ATCC Patent Deposit
Designation No. PTA-1927) or (2) the amino acid
sequence shown in SEQ ID NO: 25.

267. (Canceled)

268. (Canceled)

269. (Previously presented): The method of claim 266, wherein
the cell is a mammalian cell.

270. (Previously presented): The method of claim 269, wherein
the mammalian cell is non-neuronal in origin.

271. (Previously presented): The method of claim 270, wherein
the non-neuronal cell is a COS-7 cell, a 293 human
embryonic kidney cell, a LM(tk-) cell or an NIH-3T3
cell.

272 - 275. (Canceled)

276. (Previously presented) A process for preparing a

composition which comprises a chemical compound identified by the process of any of claims 235 or 243, recovering the compound free of any receptor, and admixing with a pharmaceutically acceptable carrier.

277. (Canceled)

278. (Canceled)

279. (Previously presented) A process for preparing a composition which comprises a chemical compound identified by the process of any of claims 249, 254 or 266, recovering the compound free of any receptor, and admixing with a pharmaceutically acceptable carrier.

280. (Canceled)

281. (Canceled)